

GENERAL NOTES

BATS ON MIGRATION

It may interest students of bat migration to know that the British Museum has received from Mr. P. E. Cheesman two specimens of the silver-haired bat (*Lasionycteris noctivagans*) and one of the red bat (*Lasiurus borealis*), which were obtained out of a flock of about a hundred which caught up with and settled on Mr. Cheesman's ship some twenty miles off the coast of North Carolina on the 3rd of September, 1920. The special interest of the record is that these two species were migrating in a considerable flock some way out to sea and in company with one another.—OLDFIELD THOMAS, *London, England*.

THE NEST OF THE WASHINGTON WEASEL (*MUSTELA WASHINGTONI*)

On July 17, 1920, while setting a biological survey line of traps in the flats of the Nooksack River, at Excelsior, Whatcom County, Washington, in a thicket almost purely of salmonberry bushes, I was casually observing the mountain beaver burrows occurring in this locality. One burrow looked especially fresh but unusually small. Stooping, I was surprised to see, deep down in the burrow, the head of some small creature like a weasel. It drew back almost at once, so a wooden and a steel rat trap, both baited with the skinned body of a small mammal, were put down.

By evening a large female weasel, apparently the mother of those captured later, was taken in the steel trap. Next morning both traps were found untouched. By evening two nearly fullgrown weasels were taken at the same time, one in each trap. Both were males. Next morning another young male was taken in the steel trap.

It appeared that here might be a nest, for there were some indistinct though clearly worn trails leading through the salmonberry bushes to the hole, with here and there a bird feather scattered about. The hole itself, 2.5 inches in diameter, was driven between the roots of the salmonberry bushes and kept open by them. The animals had gnawed the bark from those roots adjacent to the hole to make the entrance larger. That large bluebottle flies were passing in and out this burrow not only suggested the presence of a nest but that the den might be occupied by a carnivore.

After posing and photographing the adult female, we dug into the burrow to search and found that it almost immediately entered a mountain beaver den. There, in an enlargement of one of the twisting burrows, we found a nest, about as big as a dinner plate, made of moss, and resembling a grouse nest. Under this present nest between it and the entrance were the remains of what seemed to be a very old nest, which would suggest that this den had been used in former years and had possibly functioned also as a winter nest.

The main den seemed to be inhabited by the mountain beaver as well, as fresh earth was thrown out of a burrow within a few feet of the weasel nest.

The exact dimensions of this nest are as follows: Diameter from surface of the ground to bottom of the nest, 18 inches; distance from top of ground to top of nest cell, 5 inches; diameter of nest cell, 13 inches by 14 inches; diameter of actual nest, 9 inches by 9 inches; dished portion of the nest, 2 inches deep; distance dug

by weasel from *Aplodontia* burrow to surface of ground, 13 inches; distance from exit of weasel burrow to center of nest, 30 inches.—WILLIAM T. SHAW, *State College of Washington, Pullman, Washington.*

THE SEA MINK, *MUSTELA MACRODON* (PRENTISS)

There are traditions along the coasts of Maine, New Brunswick, etc., of a gigantic mink known as the sea mink, which was commonly trapped there during the early part of the nineteenth century. It disappeared about 1860. It is just possible that this was really the *macrodon* of Prentiss, 1903. If so, it is likely that specimens were preserved. It was the custom in the small hotels of the above region to have mounted any local animal of unusual interest in point of size, etc. These rarities were kept in glass cases as parlor ornaments or as bar-room accessories. If some of our travellers this summer would keep a lookout for monstrous minks in glass cases, and inquire also among the old-timers for information about the sea mink, we might get interesting details, or even specimens.—ERNEST THOMPSON SETON, *Greenwich, Conn.*

THE CURIOSITY OF THE PROWLING MINK

As I slipped from the wet trunk of a windfall down into the snow, I noticed the trail of a mink leading away through the scrub pines. On account of the high elevation of the wooded hill, the distance from any pond water or brook and the deep snows and the scarcity of birds and small prey, I was somewhat surprised at the find. I looked back of the windfall and noted no trail; I scrutinized the snow on the dead trunk of the tree where the branches were heavy with needles and snow-gobs, and not three feet from my hand marks appeared the small foot prints. In the future I shall at all such times pause and look about. No other tracks appeared, only those on the trunk and the lone trail among the pines. Trees stood close to the windfall, while pine boughs swept low, so that the animal must have been traveling overhead and have dropped to the trunk below. The only birds in the woods were a few chickadees, crows, and blue jays. I have not heard of the mink as a tree-haunter or a tree-traveler; that is, of his using the interlacing boughs for any distance. In approaching the windfall I had crossed only a pheasant's track some fifty yards back, and I had noticed the trail sharply for the tracks revealed that the bird had visited every weed sticking above the snow, diligently hunting for seeds. Weeds were few and far between, for there was some three feet of snow under a heavy crust, and upon this lay a light fall of powdery stuff some two days old. An examination of the mink trail proved it to be practically fresh, made during the night or early morning, as light forest winds had not dusted or drifted the tracks.

I decided to follow the trail and see what the animal had done on his widely ranging prowl. It led at a leisurely pace, at a seeming walk, as though time were an illusion and prey a thing unknown. Thick clumps of young birches were occasionally visited, but only such as grew in the set direction of the trail. Again, when pine boughs bending with snow swept the ground the tracks searched the shelters beneath and passed on. Pheasant and ruffed grouse tracks crossed and re-crossed, but the mink never seemed to halt in its journey over these.

Beneath a large pine the snow had fallen away from the trunk, leaving a deep hole around it; the mink circled this on the very edge. So through the woods. Only once did the animal break into a run which led it to the top of a small knoll overlooking a clearing bordered with groups of white birch, then it fell again into that leisurely pace across the untrod snow. The distance was nearly a mile to the edge of the woods.

A large pasture appeared which sloped down into a low meadow where small trees and shrubbery grew sparingly. The mink paused at the top of the slope. Then it made a half circle or sortie to one side and left a small amber colored spot on the snow, then the tracks shot straight down the slope. Halfway down a number of pheasant tracks cut across lots; the birds had dropped a number of pellets and the mink jumped to one side to sniff at these. Beyond the lowlands stood a wall of hemlocks, and among the boundary trees grew willow, alder and birches. Towards these ran the trail, straight to a brook which lay half buried under the snow.

At this point the tactics of the mink underwent a change; back in the woods the animal had seemed to be an idle prowler who merely glanced over prospects and never veered from a practically straight trail to explore even a rotten stump a yard or so to one side; while at the brook it seemed full of stealth and craftiness. The animal now became the seeker, the hunter, the killer. It jumped from the low bank into the water where grass swung lazily in the current; its tracks appeared on the opposite shore where it made a wide circle of survey and turned to the brook again. The water was shallow in places, deep toward and under the south bank, and I knew of nothing the mink could stalk there unless it were a stray sucker, trout or muskrat. Long reaches of the stream were entirely roofed over with snow. The mink took the tunnel-way, and at one place it went in, came out and walked over and then followed the irregular shore again. Now it turned abruptly from the stream, paused under a little beech where white-footed mice had tracked the snow in every direction, trotted some fifty yards out on to the smooth floor of the meadow and turned to the brook again. What prompted this foray? The brook now ran under steep banks and was quite hidden. Once again the prowler kept me to an interesting pursuit. No spot along the brook or in the waters escaped its notice. No trails appeared, only those of the mink I was following. It ran up and down, over and around, back and fourth, from one bank to another. No evidence appeared of any kill or success in its hunting.

Downstream a bit, the brook widened; the ground became marshy and hummocky. In the center of a clearing stood an old hemlock, broken off some fifteen feet above the ground. In the upper end of this relic the openings of a number of woodpecker holes appeared. The mink left the brook and in a number of leaps came to the base of the trunk. Bits of bark on the snow showed it had climbed up to explore those holes for an unlucky downy or hairy woodpecker. Beyond the tree ran the tracks of a ruffed grouse, and these it followed along the hemlocks for some distance and then doubled on its trail back to the brook. A little farther downstream the animal deliberately walked through a steel trap, but the trap had been set long, was matted in the grass and partly covered with brook rubbish. Only a small stick, barely noticable, served as a marker. I do not know whether luck was with the mink or whether it knew that the trap was harmless. As the banks became higher the brook began to be completely roofed over. The mink

trail led to the water at this point, and a walk downstream failed to discover any trace of more tracks wherever an opening appeared.

It is known that the mink is at times a traveler. In the woods the animal did not seem to enter into the pursuit of any prey. Pheasant and ruffed grouse were abroad but were not common. I found nothing of a kill. A greater portion of its trail was made at a walk which we know is a method of slow locomotion for the animal. Its usual gait is a series of fast, easy bounds. Was this animal hunting? Was hunger stalking the woods and swamps? This happened during the winter of 1920, in February, when the snowfall throughout New Hampshire was of unusual depth.—EDWARD CHARLES HOBSON, *Lowell, Massachusetts*.

THE BADGER AS A SWIMMER

In the mid-afternoon of August 4, 1920, a badger (*Taxidea taxus taxus*) was found swimming in the middle of Devils Lake, North Dakota. Mr. T. H. Hubbell and I were crossing in a motor-boat from Minnewaukon Bay to Creel Bay when we noted the animal in the water a half-mile or more from the north shore, and also about a half-mile from the south shore. It was swimming with apparent ease toward the north shore, and was making rapid progress. When secured the individual proved to be a fully grown female. The specimen is preserved in the Museum of Zoology of the University of Michigan. The day had been hot and bright—conditions apparently not favorable for the wandering of this species. No one in the region, so far as could be learned, had ever before heard of a swimming badger, and I can find no published reference to such a habit.—N. A. Wood, *Museum of Zoology, University of Michigan, Ann Arbor, Mich.*

REMAINS OF A FOSSIL PHOCID FROM PLATTSBURG, NEW YORK

In 1901 the New York State Museum received from Dr. D. S. Kellogg, Plattsburg, New York, the tibia of a seal which had been recovered in October of that year from the post-glacial clays within the city limits. The bone was found at a depth of eleven feet below the surface during the construction of a sewer trench on Bailey Avenue. The soil at this locality was said to consist of a layer of sand four or five feet thick overlying fine clay. Fossil marine shells, *Macoma greenlandica* (Beck), were abundant in the upper part of the layer of clay but none were found at the depth of the imbedded bone.

The specimen has been examined by Mr. Remington Kellogg of the Biological Survey and the following statements quoted from a recent letter will indicate its affinities. "A young individual of *Cystophora cristata* (No. 14013, U. S. N. M.) from Newfoundland . . . shows a very close approach to the fossil tibia. The lower extremity is approximately the same, including the facet for the fibula. The curvature of shaft and angle formed by the suture for the epiphysis of head, same as in *C. cristata*." The shaft of the tibia of the fossil specimen is a little thicker in the median region than is the condition in *C. cristata*. Although similar in essential characteristics to the recent specimen with which it was compared, it is perhaps best, on account of the fragmentary condition of the remains, to record the bone as the left tibia of a fossil phocid near *Cystophora cristata* Erxleb.—SHERMAN C. BISHOP, *New York State Museum, Albany, N. Y.*

AN OUTSIDE NEST OF A FLYING SQUIRREL

In many localities there have been no records of outside nests built by flying squirrels, therefore it seems advisable to record such observations in order to ascertain how widespread this practice is.

During the summer of 1920 I spent several weeks at Point Pelée, Ontario, collecting material for small habitat groups. On June 24 I found the outside nest of a flying squirrel (*Sciuropterus volans*) in a small tree covered with climbing bitter-sweet. A tall walnut tree four feet away gave the elevation necessary for the squirrels to "fly" to their permanent home, which was in a natural cavity of an oak sixty feet distant. Upon climbing to the nest, I found it contained one young, naked and blind, but my discovery evidently prompted its removal before the following day. The nest was constructed entirely of red cedar bark, and lined with fine, soft shreds of the same material. It was roughly ovate in shape, with the entrance near the top, at the end towards the tree trunk. The branches and vines supported it from all angles against the wind, and its compact structure and sheltered position in the vine made it fairly waterproof. In this instance it seems that the flying squirrel is an architect comparable with other squirrels.

—L. L. SYNDER, *Royal Ontario Museum of Zoology, Toronto, Ont.*

BEAVER "FORMS"

Although most persons who are familiar with the habits of the beaver in its native haunts must surely have seen the "forms" or resting places of the animal, yet I have failed to find mention of them in any of the literature on the beaver with which I am acquainted.

These forms, of which I have examined several in northeastern Minnesota, are not unlike those of the varying hare, except of course in the matter of size. They seem, so far as my observations extend, to be used merely as resting or sunning places during the day time, the animals returning to them daily. I have seen no indications that they are used as feeding places; they are, as a rule conspicuously free from peeled sticks; this is also true for their immediate vicinity. Whether the animals found in these forms,—I know of them only in the summer months—are males, whose presence in or about the lodges may be more or less unwelcome to the mother beaver during the time when she is rearing her young; whether they represent unmated individuals of either sex; or whether indeed they may be referable to any particular class of individuals, I cannot say. However, a specimen which I once trapped in one of these forms was a male.

All of the forms that I have seen were more or less shallow depressions in the ground, roughly oval in outline. One such form, which was occupied by a very large beaver, was situated on a muddy bank under some overhanging alders. It was approximately twenty inches in its greatest length and two inches in depth, and was littered with small chips or shredded wood. Another was in a natural depression between two slightly projecting slabs of rock and contained a rather scant bedding of dry twigs and grass. In dry situations I have seen them without litter of any kind, merely shallow depressions in the bare earth.

In most instances the forms were situated close to the edge of the bank, a couple of feet or such a matter, so that the animal could quickly reach the water.

One examined last summer was located on a low river bank, among some willows and other shrubbery, about ten feet from the water; but within two feet of it was a hole about ten inches in diameter which led into an underground channel connecting with the main stream. The beaver escaped with a sudden rush and a plunge into the water hole.

Of the several forms which I took the trouble to examine, all but one were occupied by the beaver at the time they were discovered. The majority were happened upon during the forenoon but at least two that I recall were found in the early afternoon. In one instance, where the form was located in a sunny, grassy spot at the edge of a stream, my companions and I returned, near the middle of the forenoon, next day, and by exercising caution approached by canoe to within six feet of the beaver as it lay very still in its form. While I was standing erect in the canoe endeavoring to get a better view for a camera snapshot, the animal took alarm and with startling suddenness scrambled and slid into the water. While it lay in the form its head was unfortunately hidden from view and I could not see whether the animal was taking a nap or merely enjoying a sun-bath.—CHARLES EUGENE JOHNSON, *University of Kansas, Lawrence, Kan.*

HORN SHEDDING IN YELLOWSTONE PARK

Records for the shedding of horns by elk, deer, and antelope in the Yellowstone National Park for a number of years are as follows:

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| Season 1911-1912. | Elk, March 22-April 28. |
| 1912-1913. | Elk, March 20-May 1. |
| 1913-1914. | Mule deer, February 24-March 13 (spike April 13).
Elk, March 27-April 21 (spike May 15). |
| 1914-1915. | White-tail deer, January 29-March 1.
Mule deer, February 23-March 27.
Elk, March 16-April 16. |
| 1915-1916. | (Absent from the Park.) |
| 1916-1917. | (Absent from the Park.) |
| 1917-1918. | Pronghorn, November 15-December 2.
White-tail deer, February 10-March 4.
Mule deer, February 25-March 28.
Elk, March 12-April 30. |
| 1918-1919. | (Absent from the Park.) |
| 1919-1920. | Pronghorn, October 20-November 25.
White-tail deer, January 15-February 20.
Mule deer, January 6-March 25.
Elk, March 19-May 4. |
| 1920-1921. | Pronghorn, October 31-November 28.
White-tail deer, January 20-February 10.
Mule deer, February 3-February 25.
Elk, February 28-April 21. |

It is quite usual for the "old-timers" to say that early shedding is a sign of an early spring. But such does not seem to be the case. It would appear that the condition of the animals is the main factor; and since the healthy condition of the animals on the open range is largely dependent on the forage, it would seem

that the comparative dates of horn shedding are more or less directly connected with the growth and condition of vegetation during the summer preceding the shedding season. Take the above dates for 1917-1918, which were late. The spring of 1918 was extremely early but the shedding dates were very late, and the reason is evident from the record of conditions during the summer of 1917. The winter of 1916-1917 was a hard one and the spring was very late; the forage started late and the short season did not permit it to cure properly. The horned animals did not get the usual abundance of food; the horn growth was not as strong as usual, and did not mature so early. As the horns seem to be carried about the same length of time each year, the late maturity caused a late shedding.

On the other hand the season of 1919 was early, hot, and dry, with very little forage. The horns grew at the usual rate for there was enough food during the growing period of the first half of the year. But the animals were not as strong and fat at the beginning of the winter. Then the winter was very snowy and cold and the weakened condition of the animals led to the early shedding of 1919-1920, although the succeeding spring proved one of the latest ever recorded.

The early shedding by weak and sick animals was very noticeable during the winter of 1919-1920. An old, one-eyed mule deer in evident poor health shed the first horn on December 22 and the remaining one on the 25th of the same month, and shortly afterwards died. An elk was seen on January 18 who had just shed both horns, and this animal did not live through the winter either. Since the shedding by both these animals was so evidently due to poor health, the dates are omitted from the above tabulation.—M. P. SKINNER, *Yellowstone Park, Wyoming*.

A "SILK BUFFALO" ROBE

I have in my possession a buffalo robe, an heirloom in my family, which, with a similar robe, was given to my grandfather, Martin Bates of Boston, sometime between 1840 and 1850, by Pierre Chouteau, the fur trader of St. Louis, with whom my grandfather had business dealings. As the elder Pierre Chouteau died in 1849 at the age of one hundred, it is to be presumed that his son, Pierre Chouteau, Junior, was the donor of the robes. The other robe was sold, and was inferior to the one I have. This one has been in the possession of the family ever since, though no use has been made of it. My uncle, the late Charles S. Bates, son of Martin Bates, gave the robe to his niece, and told her that it was called a silk buffalo, that it was very rare and highly valued.

The hide was tanned by the Indians, and was sewed by them on the right side with sinew threads. As this made heavy ridges which might wear away the hair my cousin had the seams ripped and sewed on the other side. The skin is 70 inches long, 65 inches wide just behind the forelegs, and 71 inches wide in front of hindlegs. The dorsal area is light brown in color, with a slight drab tone in some lights. The sides are dark, almost black on the front legs. Most of this long time the robe has been kept in the dark, so that it seems probable that it has faded little or none. The hair on the back is fine, short, and curly, apparently from one to 1½ inches long, and in texture it is very soft; I suppose it might be called "silky." I have no other bison skin at hand for comparison, so cannot say if it is really any softer than the average robe. I have made a few inquiries

about such robes, but without gaining any information. Dr. W. T. Hornaday told me he had heard of them, but had never seen one.

My cousin, Miss Bates, was in the Canadian Rockies in 1906, and the guide who took her on some of her trips showed her a photograph of his family, and called attention to a skin on which the group were seated, saying that it was a silk buffalo, killed on the Canadian prairies. The guide's father was an early settler in that region, and got the skin when he first came out. The guide spoke of its rarity and value, and was much surprised and interested to learn that my cousin knew about them and owned one. Both he and my uncle said that in a large herd occasionally one of these fine silk animals was found, but never more than one.

Mr. David N. Heizer of Colorado Springs informs me that in Kansas, after the civil war, the young buffalo bulls in November were said to be in the silk.

Can any of my readers give me any information about these skins? I am naturally somewhat curious to learn if there is really any truth as to the rarity and value of these fine-haired skins.—EDWARD R. WARREN, *Colorado Springs, Colo.*

THE CALIFORNIA GRAY WHALE ON THE COAST OF SOUTHERN CALIFORNIA

Recent writers on our Cetacea have stated that the California gray whale (*Rhachianectes glaucus*) is extinct on our coast and is, at this time, found only in small numbers along the coast of Japan. Some have gone so far as to state that it is twenty years since the last of the California grays appeared on the American coast. As I had considered this species one of our most common whales, when I left this part of the coast twenty-three years ago, I found it hard to reconcile these records with my own observations.

A trip to the Coronado Islands, twenty miles south of the harbor of San Diego, March 5, 1921, gave me the first, and, to date, the only chance of observing whales; and I was gratified to see two fine male California gray whales under conditions that rendered identification beyond question. These were the only whales of any species seen on the trip. They were northward bound and evidently migrating.

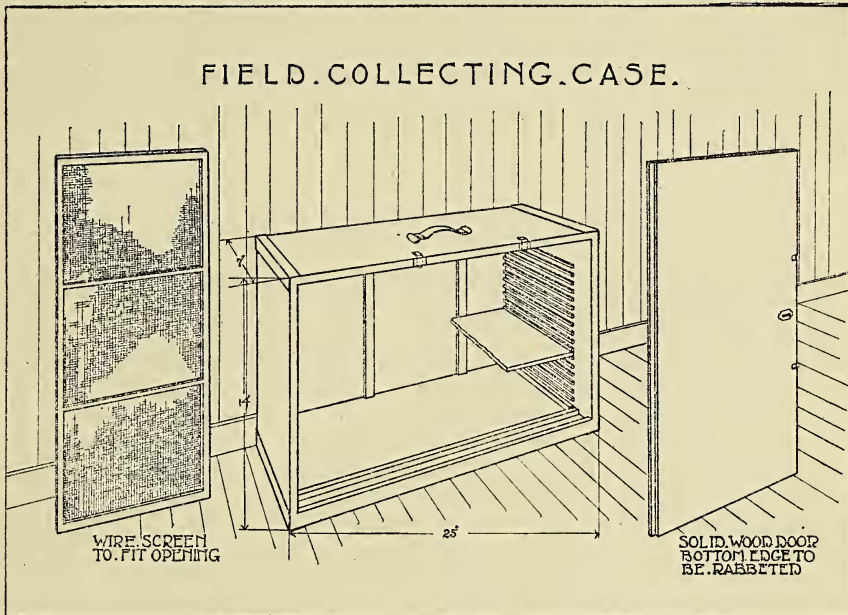
When I first came to the coast of southern California, in 1887, there were still to be found many of the old time whalers who had, from the earliest history of the whale fishery, followed the "shore whaling," hunting the "fish" from shore stations with hand-irons. These men knew the several species of our Pacific whales as they will never again be known. The present generation know little of our whales, and care less; and it is hard to obtain, at this time, any reliable data.—A. W. ANTHONY, *San Diego, Calif.*

A HANDY COLLECTING CASE

The case for drying and carrying specimens of birds and small mammals, shown in the accompanying drawing, is the handiest and most useful case for certain field work that I have ever seen. Upon my showing it to Dr. Walter P. Taylor, of the U. S. Biological Survey, during a recent visit of his to the California Academy of Sciences, and my explaining to him its main features, he asked me to send a description of it to the *Journal of Mammalogy* so that others might benefit by it.

As shown in the drawing, the case is 25 inches long by 14 inches high, and 7 inches deep, outside measurements. While these dimensions may be varied at will, they are those of a fairly large "suit case," and this size is handy to carry, to stow away in passenger coaches or automobiles, and will sling well on a pack saddle.

This case is made of some light, tough wood, $\frac{1}{2}$ inch in thickness, reinforced at the ends with angle irons or brass. The solid outer "door" of the case is of the same material as the main body of the box, but its ends are strengthened by a strip running across grain, nailed, screwed, or glued on, as is usually done in such construction.



The shelves are of $\frac{1}{4}$ or $\frac{3}{8}$ inch wood that must be soft enough to take pins well. Five shelves to a case are ordinarily sufficient for average collecting. As shown in the cut, the cleats for the shelves do not extend quite up to the top, and when not in use for specimens the shelves can all be stowed away in the upper part, leaving the rest of the box clear for packing material and supplies, such as mouse traps, cotton, or anything not too heavy.

The cleats are short enough, and the shelves narrow enough to allow the screen door to lie between them and the outer door, so that when the latter is removed, the screen is in place to protect specimens from flies, mice, cats, etc. The frame for this wire screen should be made of tough, straight-grained wood, as it is of light construction and must stand handling in taking out and putting in place, as well as an occasional fall.

Freshly prepared skins of birds or rodents, when properly pinned to the shelves, withstand the jolting of carrying by hand and of ordinary travel in good shape, but will not resist the attacks of the average "baggage smasher," of course.

The cut shows a couple of thin perpendicular strips in the rear of the case. These are so placed as to allow the passage of air behind the shelves for the better ventilation and more rapid drying of specimens. The wire side of the screen door must always be turned to the rear so that the frame will present something for the fingers to grasp in handling.

A lock is put on the solid door, and two pieces of metal are secured in slots so as to drop down and act as catches. When the outer door is removed for drying specimens these will also keep the screen door in place. These catches, as shown in the cut, could be improved upon, or small flat bolts might be set in the door instead, so long as everything is flush with the surface. Some sort of a trunk handle on the top of the case, and a leather "tab" fastened with screws on the door to aid in handling it, complete the job.—JOSEPH MAILLIARD, *California Academy of Sciences, San Francisco.*

RECENT LITERATURE

Dixon, Joseph. CONTROL OF THE COYOTE IN CALIFORNIA. Berkeley, University of California Press, Bull. no. 320, College of Agriculture, pp. 379-397, 7 figs., April, 1920.

In this bulletin the author has succeeded admirably in presenting a concise and fair statement of the economic relations of the coyote in California and the measures proposed for its control. To those who would regret the passing of the coyote, Dixon's demonstration of the fact that "a coyote is not necessarily a bad citizen" will be welcome. With prime coyote pelts selling up to \$10 and even \$20 each the fur value of the animal is not to be minimized. Add to this the beneficial activities of the coyote in destroying noxious rodents, particularly ground squirrels, and it must be conceded that the economic value of the animal is a real and not an imaginary quantity. Of course, adverse testimony is not lacking. The coyote is stated to be the most destructive carnivorous animal now existing in California, and reference is made to depredations on deer, sheep, pigs, and calves. Furthermore there is, at times, grave danger of the spread of rabies through coyotes to horses, cows, goats, dogs, cats, and other domestic animals as well as to man. Consequently control measures are essential.

The bounty system is unreservedly condemned, as being vastly expensive, productive of endless fraud, and failing to give general or permanent relief. Coyote proof fences give good results under favorable conditions. The four most effective methods of destroying coyotes are stated to be trapping, poisoning with strychnine, digging out dens containing young, and shooting. It is Dixon's opinion, on the basis of results obtained in Nevada and parts of California, that cooperation in coyote control between the State and Federal governments through the Biological Survey is much superior to the bounty system. This work, supervised by the government, is carried on upon a half-and-half basis. Experienced trappers are employed on a salary and are not permitted to accept bounties from any source.